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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/722,482 | 11/28/2003 | Seiichi Katou | 500.43301X00 | 1153 |

20457 7590 09/27/2007
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EXAMINER

GIESY, ADAM

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2627

| MAIL DATE | DELIVERY MODE |
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09/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/722,482

Applicant(s)

KATOU ET AL.

Examiner

Adam R. Giesy

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-14 is/are allowed.
- 6) ☒ Claim(s) 8 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishihara (US Pat. No. 5,978,404).

Regarding claim 8, Ishihara discloses an optical device comprising two light emitting elements each having an optical axis (see Figure 2, elements 4 and 5) and being mounted on a surface of a substrate (2a), the optical axis of the two light emitting elements being arranged perpendicular to each other and intersecting each other (4a and 5a), and at least one prism (6) having at least one of a reflection and transmission surface (6a) mounted on another surface of the substrate (11) so that the at least one of the reflection and transmission surface forms an angle of 45 degrees with respect to the optical axes at the intersection thereof (see column 3, lines 58-60), a thickness of the another surface of the substrate on which the at least one prism is mounted being thinner than a thickness of the surface of the substrate on which the two light emitting elements are mounted (see Figure 2, elements 2a and 11), and among circumferences of the another surface of the substrate on which the at least one prism is mounted, circumferences of the another surface of the substrate which are opposite to the two light emitting elements are open (see Figure 2). Ishihara also discloses that other circuit

components and circuitry are incorporated into the substrate (see column 5, lines 20-37). Ishihara fails to disclose the type and location of the circuitry and other circuit components.

Examiner asserts, however, that it is well known to integrate circuitry onto an unused portion of substrate in an integrated laser beam emission chip and to place said circuitry with device connectivity in mind. Therefore, one of ordinary skill in the art at the time the invention was made could have pursued with reasonable expectation of success the integration of circuitry onto an unused portion of an integrated circuit chip in the region on the chip located within the perpendicular optical axes and the outer circumference of the surface that the laser chips are mounted on, with further motivation being to reduce parts, simplify the mounting process, and increase connectivity to a multitude of other devices.

Regarding claim 15, Ishihara discloses all of the limitations of claim 8 as discussed in the claim 8 rejection above. Ishihara also discloses that other circuit components and circuitry are incorporated into the substrate (see column 5, lines 20-37). Ishihara fails to disclose the location of the circuitry and other circuit components.

Examiner asserts, however, that it is well known to integrate circuitry onto an unused portion of substrate in an integrated laser beam emission chip and to place said circuitry with device connectivity in mind. Therefore, one of ordinary skill in the art at the time the invention was made could have pursued with reasonable expectation of success the integration of circuitry onto an unused portion of an integrated circuit chip in the region on the chip located within the perpendicular optical axes and the outer

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circumference of the surface that the laser chips are mounted on, with further motivation being to reduce parts, simplify the mounting process, and increase connectivity to a multitude of other devices.

Allowable Subject Matter

3. The following is a statement of reasons for the indication of allowable subject matter:

Claims 9-14 are allowed over the prior art of record.

Regarding claims 9-14, please see reasons for indicating allowable subject matter as discussed in the previous Final Office Action, mailed on 4/2/2007.

Response to Arguments

4. Applicant's arguments with respect to claims 8 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ARG 9/25/2007



WAYNE YOUNG
SUPERVISORY PATENT EXAMINER